

ARIZONA STATE VETERINARY MEDICAL EXAMINING BOARD  
1740 W. ADAMS ST., SUITE 4600, PHOENIX, ARIZONA 85007  
PHONE (602) 364-1PET (1738) FAX (602) 364-1039  
VETBOARD.AZ.GOV

**COMPLAINT INVESTIGATION FORM**

If there is an issue with more than one veterinarian please file a separate Complaint Investigation Form for each veterinarian

PLEASE PRINT OR TYPE

**FOR OFFICE USE ONLY**

Date Received: Oct. 29, 2021 Case Number: 22-44

**A. THIS COMPLAINT IS FILED AGAINST THE FOLLOWING:**

Name of Veterinarian/CVT: Dr. Sage Hubert, Cardiologist  
Premise Name: Was Vet Med  
Premise Address: \_\_\_\_\_  
City: Phoenix State: Az Zip Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_

**B. INFORMATION REGARDING THE INDIVIDUAL FILING COMPLAINT\*:**

Name: Debra Perry  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Home Telephone: \_\_\_\_\_ Cell Telephone: \_\_\_\_\_

\*STATE LAW REQUIRES WE HAVE TO DISCLOSE YOUR NAME UNLESS WE CAN SHOW THAT DISCLOSURE WILL RESULT IN SUBSTANTIAL HARM TO YOU, SOMEONE ELSE OR THE PUBLIC PER A.R.S. § 41-1010. IF YOU HAVE REASON TO BELIEVE THAT SUBSTANTIAL HARM WILL RESULT IN DISCLOSURE OF YOUR NAME PLEASE PROVIDE COPIES OF RESTRAINING ORDERS OR OTHER DOCUMENTATION.

**C. PATIENT INFORMATION (1):**

Name: BAILEY  
Breed/Species: Bichon Shih Tzu  
Age: 1 1/2 yrs. Sex: Male Color: Cream/white

**PATIENT INFORMATION (2):**

Name: \_\_\_\_\_  
Breed/Species: \_\_\_\_\_  
Age: \_\_\_\_\_ Sex: \_\_\_\_\_ Color: \_\_\_\_\_

**D. VETERINARIANS WHO HAVE PROVIDED CARE TO THIS PET FOR THIS ISSUE:**

Please provide the name, address and phone number for each veterinarian.

DR. Matthews } addresses + phone  
DR. Hubert } numbers not known  
DR. Miller }  
DR. Turner - vet med ER  
Reg. - DR. IZUMI - 23425 N. Scottsdale Rd., Suite A-11  
Vet. Scottsdale, AZ 85255  
480-585-7511

**E. WITNESS INFORMATION:**

Please provide the name, address and phone number of each witness that has direct knowledge regarding this case.

DR. Izumi, See above  
Kim Broxham

**Attestation of Person Requesting Investigation**

By signing this form, I declare that the information contained herein is true and accurate to the best of my knowledge. Further, I authorize the release of any and all medical records or information necessary to complete the investigation of this case.

Signature: [Signature]

Date: 10/26/21

**F. ALLEGATIONS and/or CONCERNS:**

Please provide all information that you feel is relevant to the complaint. This portion must be either typewritten or clearly printed in ink.

See attached  
~~3~~ sheets

## **BACKGROUND ON BAILEY PERRY**

**Jan. of 2020**

Took Bailey for a dental cleaning. Dr. Bates picked up on arrhythmias before sedation.. No dental cleaning. Referred to Dr. Miller, cardiologist.

**Feb. of 2020**

Appointment with Dr. Miller. Bailey was diagnosed and during the year any and all tests that were recommended were done.

**Mar. of 2020**

Pacemaker procedure was scheduled at the recommendation of Dr. Miller. The day of surgery right before the procedure Dr. Miller did a last minute EKG and it was within normal range. Decision...what would he do if it was his dog? He said he would not go forward with the pacemaker. I took his advice. We continued with blood work and testing as needed. Bailey was doing well.

**End of 2020**

Bailey seemed lethargic so we saw Dr. Miller. The pacemaker procedure was brought up again but we needed to do all of the tests again so we did. The results of the tests showed a slight enlargement of his heart and a slower heart muscle function. The pacemaker was taken off the table.

**Dec. of 2020**

Dr. Miller prescribed a compounded Pimobenden for Bailey.. Bailey was back to normal with an occasional off day. Life was great.

**Spring of 2021**

We saw Dr. Miller for the last time before he retired. At that appointment Dr. Miller told me he didn't believe that Bailey's arrhythmias would be his downfall. He felt it would be the potential of Bailey going into heart failure. He was not in heart failure and never went into heart failure.

**July of 2021**

First and last appointment with Dr. Matthews and the resident Dr. Huber.

## COMPLAINT ON BEHALF OF BAILEY PERRY

7/20/21

Bailey had his check-up with Dr. Matthews and Dr. Hubert, a resident. Dr. Hubert gave me the details of Bailey's visit that day. Overall we were pleased with the report. There was only a small progression in his condition. Bailey was prescribed Spironolactone 25 mg tablets by Dr. Hubert for fluid and as a preventative. Bailey did NOT have any fluid in his lungs or body.

7/22/21

On our evening walk Bailey vomited up everything from that day, including his medications. They were not dissolved at all from being in his system all day. The next day I called the cardiologist's office and I was told to keep him on the Spironolactone. That same day, again on our evening walk, Bailey vomited the same as the night before. Again I contacted the cardiologist's office and was told to leave him on the medicine.

7/27/21

This morning Bailey was reluctant to go outside. We were out not even five (5) minutes when Bailey collapsed. I immediately contacted my regular vet and took him there. They are located close to my home. When I arrived Bailey collapsed, defecated and vomited up his medicine and food.. My vet was on the phone with the cardiologist's office and they said to take Bailey to Vet Med and leave him for observation. I took Bailey to Vet Med. During that time he was seen by Dr. Matthews and the emergency room vet, Dr. Turner. Later I headed home to get his medicine. I was a few minutes from home when I received a call from Dr. Turner saying I could pick Bailey up because there was nothing they could do for him. See attached discharge sheet.

Bailey was a patient of the retired Dr. Miller and his first appointment, for a routine check-up, with Dr. Matthews, was on 7/20/21. I have yet to meet Dr. Matthews. Despite Bailey's cardio issues he was a very happy and loved boy. In researching Spironolactone I found that a serious side effect is a lower heart rate. As much as I expressed that this new medicine caused an even slower heart rate I was ignored. The serious side effects of the Spironolactone were not taken into consideration.

Now off of the Spironolactone the vomiting stopped however the collapsing and loss of bladder control continued. Many times during the next 37 days I thought Bailey was going to come through this but with his slow arrhythmia now slowed consistently by the Spironolactone he was unable to come back from the serious side effect of this medication.

In the early morning of August 26th I rushed Bailey to Blue Pearl where I had to say goodbye to my precious boy.

It is clear to me that given there was no fluid in his body and his slow arrhythmia he should have never been put on the Spironolactone.

My complaint against these doctors is the introduction of the Spironolactone without a justifiable cause, the apparent lack of knowledge of the serious side effects of this medication and prescribing it to Bailey and assuming that what was happening to Bailey was due to his condition and not the introduction of the new medication.

I will be more than happy to discuss and answer all questions that you have.

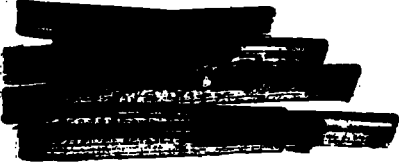
I appreciate your careful consideration of my complaint.

*Bailey was not in heart failure.*

November 30, 2021

Arizona State Veterinary Medical Examining Board  
1740 E. Adams St.  
Ste. 4600  
Phoenix, AZ 85007  
(602)364-1738

Sage H. Hubert



**Narrative in Response to 22-44: Complaint from Debra Perry**

**Initial appointment with Bailey Perry:**

Bailey Perry, an 11 year 6-month-old male neutered Bichon Frise mix, first presented to me as a patient on 07/20/2021 for a recheck of previously suspected myocarditis based on elevated cardiac troponin I levels, complicated ventricular, supraventricular, and bradyarrhythmias, and progressive cardiac enlargement with systolic dysfunction for which he was currently receiving pimobendan. The owner reported to the veterinary technician on his case (Jessica Richardson) that Bailey had been doing well at home since 12/14/2020. The owner mentioned that the frequency of Bailey's coughing episodes had increased mildly, but he did not have any episodes of collapse. There was no mention of him being weak or lethargic, and he had a normal appetite although particular at times. He was receiving pimobendan, Denamarin, Heartgard, and gabapentin at that time.

His physical examination revealed a bright and responsive patient with an irregular heart rhythm and grade III/VI left apical systolic murmur. He had frequently dropped femoral pulses, and his bronchovesicular sounds were within normal limits. A recheck echocardiogram was performed that revealed mildly progressive left atrial enlargement and persistent reduced left ventricular systolic function. The right ventricle and atrium were dilated in size, and he was found to have an elevated MV E velocity consistent with elevated left ventricular filling pressures which can be an indicator of impending congestive heart failure (cardiogenic pulmonary edema). Thoracic radiographs were performed revealing generalized severe cardiomegaly with normal pulmonary artery and vein size. The pulmonary parenchyma was clear with no evidence of cardiogenic pulmonary edema.

An ECG was performed during that examination, and it revealed an underlying sinus rhythm with high grade second degree AV block. There was an overlying junctional escape rate at 58 bpm with paroxysms of supraventricular tachycardia with 1:1 conduction appreciated. There were single multiform ventricular premature complexes as well as a single four beat multiform paroxysm of ventricular tachycardia. Dr. Derek Matthews and I agreed to start Bailey on spironolactone to try and reduce his increased risk of impending congestive heart failure and not for treatment of cardiogenic pulmonary edema. Spironolactone blocks the hormone aldosterone at the mineralocorticoid receptor which can lead to worsening edema as this hormone causes retention of sodium and water. In addition, aldosterone causes increased myocardial fibrosis, reduced release of nitric oxide (vasoconstriction), and

increased release of cardiac norepinephrine. Blocking these mechanisms with spironolactone, can cause mild diuresis, anti-fibrosis, and vasodilation, all of which are beneficial in cardiac patients.

I went out to the car as Bailey was checked in via a COVID 19 curbside protocol which the owner was aware of at the time. I discussed the findings of each diagnostic test with Mrs. Perry. We discussed his underlying arrhythmia, his echocardiogram, and his thoracic radiographs. I asked Mrs. Perry how she felt that Bailey was doing at home, and she happily reported that he had been doing great at home with no episodes of collapse. When specifically asked about Bailey's quality of life, she said that she felt Bailey had a good quality of life although she knew he had underlying cardiac disease. We then went on to discuss his progressive heart enlargement, and the concern for his elevated left ventricular filling pressures and impending congestive heart failure. I stated to Mrs. Perry that I was concerned that Bailey was going to develop fluid within his lungs over the next weeks to months. I asked her about the current medication she was administering (pimobendan), and I asked her to clarify the amount she was giving him. She responded that she was giving her ½ tablet of 7.5mg. I asked her to repeat this as this was a different dosage than was previously documented, and after she repeated her dosage, we did not make any changes to his pimobendan, but we were not going to start him on the new medication called spironolactone. I explained that spironolactone was a weak diuretic agent with anti-fibrotic and potassium sparing properties. We discussed that it does act on the kidneys and as such, I recommended recheck blood work in 2-4 weeks as documented in the medical record.

Mrs. Perry agreed to follow this recommendation for spironolactone. We also discussed a pacemaker and I explained, in detail, the pros and cons of a pacemaker implant. We discussed the benefits of gaining better management of Bailey's arrhythmias which would improve his quality of life. However, we did discuss that the implantation of a pacemaker would not add to his lifespan due to the significant remodeling of Bailey's heart. Also, since Bailey's quality of life was reported as good at this time, it was not absolutely necessary to pursue this procedure if she did not want to assume the risks of the procedure itself. I also told Mrs. Perry that I would be happy to discuss Bailey's case, including a possible pacemaker implant, with Dr. Matthew Miller who had previously provided the dog cardiac care. At the end of the conversation, I discussed the clinical signs of congestive heart failure, and I offered to have Dr. Derek Matthews come out and meet Mrs. Perry in person if she would like. Mrs. Perry said that she did not need to speak with Dr. Matthews as I had answered her questions, but she did want me to consult with Dr. Miller. I assured her that I would, and I would call her with his opinion. Mrs. Perry seemed happy with this response and how the appointment went.

On Thursday, 7/22/21, Dr. Matthew Miller was serving as the locum cardiologist at VetMED since Dr. Derek Matthews was out of town. Dr. Miller and I discussed Bailey's case as well as how his appointment had gone on that previous Tuesday. We agreed that although a pacemaker would be the optimal management for Bailey it was not an absolute necessity. It was also that same day (7/22/21) when Mrs. Perry called Katy Skidmore to ask about an error in the physical examination on the cardiology report. Katy came and discussed with me that a typo was in the report that made the statement "with obvious lameness". I created an addendum to the report that corrected the physical examination, so it read "no obvious lameness, and the patient was ambulatory x4." The report was resent to the owner, and in Katy's client communication, she said the owner was appreciative of the call back.

On 7/23/2021, I called Mrs. Perry to discuss my conversation with Dr. Miller that had taken place on the previous day. I reiterated that while a pacemaker is indicated for the management of Bailey's arrhythmias at this juncture a pacemaker would only add quality of life to Bailey, but it would not likely increase to his lifespan due to his progressive structural disease. I also told her that since she reports that Bailey feels good at this time, the big decision would be to accept the inherent risks of a pacemaker procedure in a dog that is already experiencing a good quality of life. I added that if Mrs. Perry thought Bailey was having a poor quality of life, we would be having a different conversation with more need to place a pacemaker. Mrs. Perry agreed. She did not want to pursue a pacemaker especially as it would not change his lifespan and would not change his structural heart disease. Mrs. Perry was appreciative that I had taken the time to discuss Bailey with Dr. Miller. During this conversation, she did not mention Bailey having any vomiting or concerning symptoms.

On the morning of 7/27/2021 (Tuesday), Mrs. Perry called VetMED and spoke with one of the cardiology technicians Katy. Mrs. Perry reported to Katy that Bailey had been having some gastrointestinal upset and inappetence over the weekend. The owner had started the spironolactone the prior week, but she had also started CBD treats. The owner had stopped giving the CBD treats, but Bailey was still particular about eating. Katy recommended that if he did not improve in the next 24-48 hours that Bailey should be seen by his primary veterinarian.

Later that day (at 1:37 PM), Mrs. Perry again spoke with Katy reporting that Bailey was more lethargic, and he had collapsed outside. She had him at his primary veterinarian, but she did not know what to do. Katy recommended that Bailey's primary veterinarian speak with me or Dr. Matthews. Dr. Izumi (primary veterinarian) called and spoke with me regarding Bailey. She reiterated that Bailey had collapse that morning. An ECG at the hospital revealed an average heart rate of 50 beats per minute with intermittent VPCs. I recommended that blood work be performed to evaluate kidney and liver values and that the spironolactone and CBD treats be discontinued. I recommended that if Bailey begins feeling better, then the spironolactone can slowly be added in without supplements. We also discussed that new pain medication be used for his hips. The primary veterinarian reported normal breathing rate and effort, and that she would relay our recommendations to the owner.

Later that afternoon, Bailey was presented to the VetMED emergency service and was seen by Dr. Hailey Turner. Dr. Turner's history repeats what was previously reported by the owner and primary veterinarian with the addition that Bailey had a second episode of collapse while at the primary veterinarian's hospital. Dr. Turner's physical examination revealed slightly increased lung sounds, a grade 3/6 heart murmur, periodic pulse deficits, and a normal neurologic examination. Blood work was reported to be pending with the primary veterinarian, and as such, it was not repeated. An in-house consultation with Dr. Matthews and I was requested. A six lead ECG revealed complete atrioventricular block with an overlying ventricular escape rate occurring at a heart rate of 45 beats per minute. There were frequent ventricular arrhythmias with multiform single ventricular premature complexes, and a uniform couplet with R on T phenomenon noted. An echocardiogram revealed progressive elevated left ventricular filling pressures, and mild pulmonary hypertension. Thoracic radiographs did not reveal any cardiogenic pulmonary edema.

Dr. Matthews had an extensive conversation with Mrs. Perry over the phone. I was present in the office during his phone conversation. Dr. Matthews reiterated with Mrs. Perry the concerns that had been discussed at the recheck appointment approximately a week prior. He discussed that Bailey was on the



edge of congestive heart failure, and he went over clinical symptoms of congestive heart failure. When the subject of spironolactone was discussed, Dr. Matthews made it exceedingly clear to Mrs. Perry that if she did not want to continue the spironolactone, she could discontinue it. He again discussed pacemaker implantation and informed Mrs. Perry that this would be necessary to control his overall heart rate and help with his clinical symptoms. He reiterated that quality of life and not quantity would be the recommended goal. At that time, Mrs. Perry told Dr. Matthews that she did not want to pursue a pacemaker, and she wanted to take Bailey home for further monitoring and to spend time with him. Bailey's emergency discharges stated that he could pass away at home at any time due to his cardiac disease and arrhythmias.

On 7/28/2021, Mrs. Perry called and spoke with Katy informing her that Bailey had a collapsing event that morning where he lost control of his bladder, and she noted jerking of his head and front legs. The owner was concerned that this was a seizure for which Katy advised her that this episode could be the product of his arrhythmias. On 8/4/21, Mrs. Perry again spoke with Katy inquiring about what clinical symptoms would indicate a decreased quality of life. Katy discussed with her about Bailey feeling restless, having difficulty breathing, severe lethargy, and progressive collapsing episodes. She told her that these could indicate that his quality of life was deteriorating.

On 8/7/21, Mrs. Perry called and spoke with Tammy Farmer (an emergency technician) regarding the spironolactone medication. Mrs. Perry claimed that Bailey's dosage was not correct per what she had read on the internet. Tammy went over with Mrs. Perry the correct dosage in veterinary medicine for spironolactone being 2 mg/kg. At that time, Mrs. Perry mentioned that Bailey was off the spironolactone and was not having any more collapsing episodes.

On Monday (8/9/21), Katy spoke with Mrs. Perry regarding her concerns with the spironolactone. The owner did not provide any update on how Bailey was feeling, but she was concerned that the spironolactone had caused him to decline as had been doing well prior to that medication. Katy discussed that she could not rule out a reaction to the medication although it is not normally common to see such side effects. Mrs. Perry then discussed that she was uncomfortable with me as her doctor since I made the typo in her examination (which was revised and resent), and in addition she felt that I was confused about the pimobendan dose although this was due to an error in a previous report and by the end of the appointment this issue was clarified and remedied. She wanted to speak with someone about the doctors; and Katy offered to forward her complaints to the appropriate person.

On 8/17/2021, Mrs. Perry left a message to speak with Dr. Stephanie Foote regarding Bailey's care. On 8/18/21, Dr. Foote spoke with Mrs. Perry regarding her complaints, and her concern for Bailey having a reaction to the spironolactone. During that conversation, Mrs. Perry stated that she had a follow up at her primary veterinarian (Dr. Izumi) and with Dr. Miller last week where he recommended starting the spironolactone. Mrs. Perry said she would continue to work with her primary veterinarian.

On 8/30/2021, Mrs. Perry called VetMED to speak with Dr. Foote. Mrs. Perry's message stated that she felt Bailey had suffered under my and Dr. Miller's care. She felt that the spironolactone made Bailey worse and that he did not need the medication at that time. In that message, she said that Bailey was euthanized on 8/26/2021. On 9/3/2021, Mrs. Perry left another message for Dr. Foote. On 9/7/2021, Mrs. Perry discussed that she still felt concerned about the course of events leading up to Bailey's euthanasia. Dr. Foote offered grief support services, and the conversation ended. No additional client communications are logged.

In retrospect, I stand behind the spironolactone medication that Dr. Matthews and I recommended which was supported by another fellow board certified cardiologist, Dr. Miller. Thank you.

Names and Contact Information for those named in this record that may have additional information:

Katy Skidmore (CARE Surgery Center) – work phone number: 623.328.9007

Jessica Richardson (CARE Surgery Center) – work phone number: 623.328.9007

Dr. Matthew Miller (Black Mountain Veterinary Cardiology) – phone number: 602.540.0872 email:

[REDACTED]  
Tammy Farmer (VetMED) – work phone number: 602.697.4695

Christine Pace (VetMED) – work phone number: 602.697.4695

Dr. Hailey Turner (VetMED) – phone number: 602.697.4695 email:

Dr. Izumi (Pinnacle Peak Animal Hospital) – work phone number: 480.585.7511

Dr. Stephanie Foote (VetMED) – phone number: 602.697.4695

Dr. Derek Matthews (EPIC Veterinary specialists)- work phone number: 480.673.6099 email:

[REDACTED]

**Douglas A. Ducey**  
- Governor -



**Victoria Whitmore**  
- Executive Director -

**ARIZONA STATE VETERINARY MEDICAL EXAMINING BOARD**

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[vetboard.az.gov](http://vetboard.az.gov)

**INVESTIGATIVE COMMITTEE REPORT**

**TO:** Arizona State Veterinary Medical Examining Board

**FROM:** PM Investigative Committee: Adam Almaraz - Chair  
Amrit Rai, DVM  
Steven Dow, DVM  
Gregg Maura  
Justin McCormick, DVM

**STAFF PRESENT:** Tracy A. Riendeau, CVT – Investigations  
Marc Harris, Assistant Attorney General

**RE:** Case: 22-44

Complainant(s): Debra Perry

Respondent(s): Sage Hubert, DVM (License: 7647)

**SUMMARY:**

Complaint Received at Board Office: 10/29/21  
Committee Discussion: 3/1/22  
Board IIR: 4/20/22

**APPLICABLE STATUTES AND RULES:**

Laws as Amended August 2018  
(Lime Green); Rules as Revised  
September 2013 (Yellow)

In January 2020, "Bailey," an approximately 10-year-old male Bichon Shih Tzu mix was diagnosed with a complex arrhythmia by cardiologist, Dr. Miller. Pacemaker implantation was considered and the dog's condition was closely monitored; myocarditis was suspected. Throughout the year, the dog's condition stabilized but later progressed and pimobendan was initiated.

On July 20, 2021, the dog was evaluated by Dr. Matthews and Dr. Hubert. Diagnostics were performed; due to the progression of the dog's heart disease, spironolactone was initiated. Dr. Miller was in agreement with the treatment.

On July 27, 2021, the dog collapsed twice and after evaluation, the primary care veterinarian, Dr. Izumi, referred the dog to the cardiologist. Dr. Turner evaluated the dog on intake then turned the dog over to the cardiology department. The spironolactone was discontinued based on Complainant's concerns.

Complainant had several discussions with the cardiology department regarding her concerns that the spironolactone had caused the dog to decline.

On August 12, 2021, the dog was evaluated by Dr. Miller. He felt the dog's condition was progressing and recommended restarting the spironolactone at a lower dose. Complainant chose not to restart the medication.

On August 26, 2021, the dog collapsed, was taken to an emergency facility and was humanely euthanized.

**Complainant was noticed and appeared.**

**Respondent was noticed and appeared with attorney David Stoll.**

**The Committee reviewed medical records, testimony, and other documentation as described below:**

- Complainant(s) narrative: *Debra Perry*
- Respondent(s) narrative/medical record: *Sage Hubert, DVM*
- Consulting Veterinarian(s) narrative/medical records: *Zona Izumi, DVM; Matthew Miller, DVM*
- Witness Statement: *Kimberly Broxham*

#### **PROPOSED 'FINDINGS of FACT':**

1. In January 2020, the dog was presented to Dr. Izumi, the primary care veterinarian. Dr. Izumi auscultated a cardiac arrhythmia and referred the dog to Dr. Miller at VETMED for a cardiac workup.

2. Dr. Miller performed an ECG which documented atrioventricular block and paroxysmal supraventricular tachycardia. He recommended an echocardiogram, 24-hour ambulatory Holter monitoring and blood work. Complainant elected to have the Holter monitoring performed but declined all other recommended diagnostics.

3. On February 5, 2020, the Holter monitor documented paroxysmal supraventricular tachycardia, AV nodal block, sinus arrest and R-on-T ventricular tachycardia – a potentially fatal arrhythmia. Dr. Miller stated that the complexity of the arrhythmia precluded empirical therapy. He discussed pacemaker implantation as potentially being necessary as part of complete management however additional anti-arrhythmic therapy would be required. Dr. Miller recommended further diagnostics that were previously declined – Complainant approved. Left atrial and left ventricular enlargement were noted, the ultra-sensitive cardiac troponin I was mildly elevated which was consistent with myocarditis. The pacemaker implantation was scheduled.

4. On February 26, 2020, Dr. Miller and Dr. Matthews were presented with the dog for the pacemaker implantation. Blood work and exam were performed. Based on auscultation, the heart rhythm was found to have improved compared to previous examinations. Dr. Miller performed a 6-lead ECG which revealed improvement of the average heart rate. Dr. Miller discussed the findings with Complainant and the pacemaker implantation was aborted.

5. Dr. Miller recommended follow-up with ultra-sensitive cardiac troponin I and Holter monitor, Complainant agreed. The Holter monitor revealed improvement in the previously diagnosed arrhythmias, although there was still a complex arrhythmia present including, AV block, ventricular tachyarrhythmias, and supraventricular tachycardia. The ultra-sensitive cardiac troponin was increased when compared to the initial value, strongly supportive of a diagnosis of active myocarditis. Monitoring was elected instead of placing the pacemaker.

6. In March 2020, a recheck ECG was performed and revealed improvement in the cardiac rhythm. The ultra-sensitive cardiac troponin I was decreased which was suggestive of resolving cardiac inflammation. Dr. Miller stated that some cases of myocarditis can improve or resolve as inflammation decreases although residual damage can ultimately result in progressive myocardial scarring and dysfunction. Complainant was advised to continue monitoring the dog and recheck in 4 – 6 months. Dr. Miller frequently discussed the case with Dr. Matthews and Dr. Hubert.

7. In May 2020, the dog was presented to Dr. Miller for an ECG. The ECG revealed resolution of the atrioventricular block although the previously documented ventricular arrhythmias were still present. An ultra-sensitive troponin I showed further reduction suggestive of decreasing cardiac inflammation/necrosis. Holter examination was recommended but declined by Complainant.

8. In September 2020, Dr. Miller evaluated the dog due to Complainant's reports of the dog have lethargy, panting, decreased activity and episodes of notable weakness. The ultra-sensitive troponin I revealed worsening cardiac inflammation, but the ECG did not reveal worsening of the underlying arrhythmias. Holter evaluation was recommended but declined at that time.

9. In November 2020, Complainant agreed to the Holter examination. Dr. Miller stated that the findings were consistent with those from the initial Holter performed in January 2020. He again recommended considering the pacemaker implantation as well as a repeat echocardiogram.

10. On December 4, 2020, Dr. Izumi performed blood work on the dog which revealed elevated liver enzymes. The dog was prescribed Denamarin and his NSAID was switched from carprofen to metacam. The dog was also started on milk thistle.

12. On December 14, 2020, the dog was presented to Dr. Miller for a recheck due to episodes of collapsing. An echocardiogram was performed and revealed progressive left ventricular dysfunction; it was suspected to be the cause of collapse episodes. – the previously reported left atrial and left ventricular dilation were still present. Pimobendan was initiated to improve the dog's systolic function. An ECG was also performed which was unchanged from the last examination. Dr. Miller and Complainant elected to not proceed with the pacemaker implantation.

13. On February 16, 2021, the dog was presented to Dr. Izumi for due to coughing. He had been asymptomatic for heart disease since the initial diagnosis. Dr. Izumi did not know if the cough was cardiac vs respiratory. Thoracic radiographs were performed and sent to Dr. Miller for interpretation. Dr. Miller reviewed the radiographs and did not see evidence of congestive heart failure.

14. On March 29, 2021, Complainant called VETMED with concerns the dog was coughing more and had been lethargic for the past few days. It was recommended the dog be brought to the primary care veterinarian or evaluated through the VETMED emergency service. Complainant requested an appointment and was advised that the earliest the dog could be seen was in July with Dr. Matthews since he currently was the only cardiologist at VETMED.

15. March 31, 2021 was Dr. Miller's last day at VETMED however he covered clinical duty for Dr. Matthews on occasion.

16. On April 9, 2021 and on May 19, 2021, the dog was evaluated by Dr. Izumi for coughing. Repeat thoracic radiographs did not reveal any changes.

17. On July 20, 2021, the dog was presented to Dr. Matthews for a recheck evaluation. Complainant reported the dog had mild increase in coughing but no further episodes of collapsing, fainting, weakness or lethargy. The dog was currently on pimobendan, Denamarin, gabapentin, and Heartgard. Complainant was advised that Dr. Hubert, the veterinary resident would be seeing the dog and Dr. Matthews would be directly overseeing her the entire appointment.

18. A 6-lead ECG was performed as well as a thorough exam. The evaluation revealed a worsening of the previously diagnosed arrhythmia when compared to the ECG obtained in December 2020. They were similar to the January and November 2020 Holter reports. Thoracic radiographs revealed progressive generalized cardiomegaly with moderate left atrial and left ventricular enlargement. An echocardiogram revealed the left atrium and ventricle were mildly increased in diameter when compared to the previous echocardiogram. The findings indicated an increased risk of developing congestive heart failure within the next weeks to months due to the elevated left ventricular filling pressures that lead to elevated pressure within the pulmonary veins and subsequent left sided congestive heart failure.

19. Based on the dog's symptoms and diagnostic findings, Dr. Hubert and Dr. Matthews were concerned that the dog was at risk of developing left sided congestive heart failure within the coming weeks to months. Due to this concern, spironolactone was recommended. The medication was not initiated to treat current congestive heart failure or pulmonary edema, it was started to prevent pulmonary edema in the new future and slow the dog's progressive

heart disease.

20. Spironolactone can have rare side effects especially if not given in conjunction with an ACE inhibitor, therefore it was recommended to have recheck chemistry analysis every 2 – 4 weeks after starting spironolactone. GI distress is also listed as a rare side effect. Dr. Matthews stated that all the side effects are reversible by stopping the medication.

21. Dr. Hubert discussed the findings of the diagnostics and recommendations with Complainant. They recommended placement of a pacemaker for treatment of the dog's bradycardia, although it may not improve the dog's quality or quantity of life due to the progressive heart enlargement and decreased cardiac function, it was still medically recommended. The purpose of the spironolactone and the need for recheck blood work were also discussed with Complainant. Dr. Hubert offered to have Dr. Matthews speak with Complainant as well regarding the findings and recommendations. Complainant declined, however she did want Dr. Hubert to discuss the case with Dr. Miller.

22. On July 22, 2021, Complainant stated that on their evening walk, the dog vomited up everything from that day, including the medications. Complainant stated that she called VETMED and was advised to keep the dog on the spironolactone.

23. According to Dr. Hubert, Complainant called the premises to ask about an error she found on the cardiology report. It was regarding a statement indicating the dog showed lameness; Dr. Hubert made an addendum to the report to reflect the dog was not lame at presentation. There was no mention that the dog had vomited.

24. Dr. Hubert discussed the case with Dr. Miller who was covering for Dr. Matthews while he was on vacation. After going over the details with Dr. Miller, Dr. Miller agreed with their assessment and recommendations, including the initiation of spironolactone. Pacemaker implantation was also again discussed.

25. On July 27, 2021, Complainant called VETMED to report the dog had GI issues throughout the weekend. She had started the dog on CBD treats and spironolactone the week prior. Complainant had stopped the CBD treats but the dog was still not eating well. Complainant was advised that if the dog did not improve within the next day or two, the dog should be seen by the primary care veterinarian.

26. Later that day, the dog collapsed and was presented to Dr. Izumi. Dr. Izumi noted the dog was bradycardic and much quieter than usual. While at the hospital, the dog collapsed again – Dr. Izumi spoke with Dr. Hubert who said the dog's vomiting could be dietary related or due to spironolactone – she recommended spironolactone to be discontinued. Dr. Izumi referred the dog to the cardiologist for further monitoring and possible diagnostics.

27. Later that day the dog was presented to VETMED through the emergency service. Dr.

Turner evaluated the dog and noted the previously diagnosed arrhythmia and heart murmur. The primary concern was syncope secondary to atrioventricular block and heart disease. Dr. Turner discussed the case with the cardiology department and due to the dog being a current patient of theirs he was transferred over for a repeat echocardiogram.

28. Dr. Matthews and Dr. Hubert performed an ECG, an echocardiogram and thoracic radiographs. After diagnostics, Dr. Matthews spoke with Complainant and discussed that the dog was on the edge of congestive heart failure. He went over the clinical symptoms of congestive heart failure and advised Complainant that if she did not want to continue the spironolactone, she could discontinue the medication. Pacemaker implantation was again discussed and Complainant did not want to pursue at that time. She wanted to take the dog home for further monitoring and spend some time with him. The dog's discharges stated that the dog could pass away at any time due to his cardiac disease and arrhythmias.

29. According to Complainant, Dr. Turner told her to come and pick up the dog as there was nothing they could do for him. Dr. Turner stated in her narrative that she wrote discharges reflecting the recommendations made by the cardiology service during their discussions.

30. On July 28, 2021, Complainant called VETMED and reported that the dog collapsed. She was concerned it was due to a seizure and was advised that it was likely related to his arrhythmias.

31. On August 4, 2021, Complainant called VETMED with questions about what clinical symptoms would indicate a decreased quality of life. She was advised that restlessness, difficulty breathing, severe lethargy, and progressive collapsing episodes could indicate the dog's quality of life was deteriorating.

32. On August 7, 2021, Complainant called VETMED regarding the spironolactone. She expressed concern that the dosage was not correct after looking it up on the internet. The dosage was discussed. Complainant advised that she had stop giving the spironolactone and the dog was no longer having collapsing episodes.

33. Complainant contacted VETMED over the next few days voicing her displeasure with the cardiology department and questioned their services.

34. According to Dr. Izumi, Complainant believed that the dog had an adverse reaction to the spironolactone and that the dog really did not have overt clinical cardiac symptoms until the drug was started. She also questioned the dog's quality of life due to continued syncopal episodes.

35. On August 12, 2021, the dog was presented to Dr. Miller at Pinnacle Peak Animal Hospital. After exam, he felt the dog's condition was progressing and recommended repeating the Holter monitor – they also discussed pacemaker placement including the associated risks



with the procedure as well as the challenges posed by the previously documented myocarditis and myocardial systolic dysfunction. Dr. Miller recommended restarting the spironolactone at a lower dose, with up-titration overtime if well tolerated.

36. On August 17, 2021, Dr. Izumi saw the dog. Complainant did not restart the spironolactone as she did not trust the medication. The dog seemed stable at that time.

37. On August 26, 2021, the dog was presented to BluePearl due to collapsing episodes. The dog was humanely euthanized.

38. Complainant believes the dog should never have been put on spironolactone as he was not in congestive heart failure.

#### **COMMITTEE DISCUSSION:**

The Committee discussed that the pet owner was very dedicated and compliant with the recommendations from the doctors involved.

The Committee did not feel the spironolactone contributed to the dog's death. The dog had a severe condition that was progressing. They wondered if the CBD treats had any impact on the dog's health.

#### **COMMITTEE'S PROPOSED CONCLUSIONS of LAW:**

The Committee concluded that no violations of the Veterinary Practice Act occurred.

#### **COMMITTEE'S RECOMMENDED DISPOSITION:**

**Motion:** It was moved and seconded the Board:

*Dismiss this issue with no violation.*

**Vote:** The motion was approved with a vote of 5 to 0.

*The information contained in this report was obtained from the case file, which includes the complaint, the respondent's response, any consulting veterinarian or witness input, and any other sources used to gather information for the investigation.*

TR

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Tracy A. Riendeau, CVT  
Investigative Division